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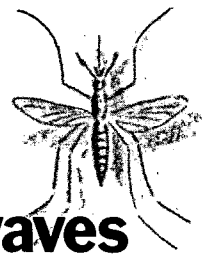

Microwaves to substitute for DDT?

With DDT virtually banned for control of mosquitos, more of the ugly fellows have been around lately. Ernie Ruda of CALSPAN Inc. in Buffalo, N.Y. (formerly, Cornell Aeronautical Laboratory, Inc.), thinks he may have just the right sleep potion to turn the sting onto the pests themselves. The answer, according to Ruda, may be microwave radiation.

Only tried on laboratory samples so far, Ruda says that encouraging results were obtained by directing K-band microwave energy onto a raft of mosquito eggs and larvae for a period of from 1 to 3 minutes. The energy concentration was about 2 mW/cm^2. Ruda wouldn't speculate on the mortality percentage of larvae and unhatched eggs, because of the many complex factors involved, but he did claim significant results.

Mosquitos chosen for the experiment were the Southern house mosquito (Culex pipiens quinquefaciatus), which according to Ruda is typical of the usual kind of mosquitos found in homes in the northern part of the country. He shot the egg rafts with "rifle" bursts of 0.5 μs pulses at the rate of 2000 per second. The rf frequency was 24 GHz.

So far, Ruda says, no evidence exists to expect any effect of this level of microwave radiation on adult mosquitos. (There seems a reluctance to increase the dosage level because of possible harmful effects on fish and possibly humans.) So far, little has been done to study means for practical application of microwave energy for effective mosquito control; however, speculation would suggest scanning beams from helicopters and from land vehicles, manpacks or boats.

Funding for this program has, according to Ruda, been entirely corporate. (Sounds like a good program for environmentalists to put their money into). E.T.E.

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